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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,845

07/17/2006

Jean-Pierre Tretout

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

06/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,845	Applicant(s) TRETOUT, JEAN-PIERRE	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-3 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 depends from one of claims 1-6, however, claims 1 and 5-6 have been cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3 and 10-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15-16 recite the limitation "the step" in various lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 15-16 recite the limitation "the object" in line 2 of each of the claims. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "means being" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-3, 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung et al. 2001/0030748 in view of Lehmann 6,358,047.

3. Jung teaches a device for automatically determining the shade of an object , including a light source, a light sensor positioned so as to sample an area of the object, light reflected from the object further comprising means for wavelength analysis on this light after reflection or passing through the object, these means delivering a spectrometric reading corresponding to the sampling area, a camera and means for displaying an image of the object as sampled by the camera (par. 171) and interactive means of selection (par. 190-191). Jung further teaches the device characterized in that it comprises means provided for automatically displacing the light sampling area over an extend area of the surface object, and that the device is provided for sampling light in a plurality of points over a surface having a relief, such as a tooth. Jung further teaches the device characterized in that it include means for displacing a spectrometric sensor along a sampling line extending over the object. Jung teaches the method of using the device as discussed above including the steps of illuminating the object, sampling the light after reflection of the object, analyzing the wavelength of the light after reflection to establish a spectrometric reading of the object, inferring from this analysis a shade of the object. Jung further teaches the method of sampling light in different areas for establishing a plurality of spectrometric readings corresponding to the different areas, plotting on the image a series of shades sampled from the plurality of

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spectrometric readings at their corresponding location on the object (par. 18-19, 97 and 170-171). Jung further teaches using the spectrometric readings for defining the shade of a material subsequently added to the object (par 244). Jung does not specifically teach identifying an average spectrometric reading from the set of spectrometric readings and allowing the user to perform a spatial selection of the object represented on the screen, means being provided for expressing this spatial selection as a selection of sampling points from light sampling performed on these points specifically positioned in this spatial selection and for calculating the global shade from light samplings performed on these points and the plurality of points describes at least one segment orientated longitudinally to the tooth and further describes a segment is substantially aligned with the gum. Lehmann teaches an average reading from a set of readings and allowing the user to perform a spatial selection of the object represented of the screen (as illustrated in fig. 6), means being provided for expressing this spatial selection as a selection of sampling points from light sampling performed on these points specifically positioned in this spatial selection and for calculating the global shade from light samplings performed on these points and defining a shade of a material to be added to the object based on the average reading (col. 3, ll. 5-16, col. 9, ll. 21-40, col. 10, ll. 10-12) and the plurality of points describes at least one segment orientated longitudinally to the tooth and further describes a segment is substantially aligned with the gum as illustrated in fig. 6. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Jung in view of Lehmann in order to optimize the color determining results to reproduce an optimum color reproduction.

Response to Arguments

Applicant's arguments filed April 20, 2009 have been fully considered but they are not persuasive. Applicant argues that Jung does not perform automatic determination of the shade of the object because Jung compares the reading with a shade guide. However, this comparison is done automatically by the computer, further, applicant states in par. 1 of the published application that the automatic determination of shades by means of optical equipment provided with means for analyzing the received wavelengths and Jung is analyzing the received wavelengths when comparing them to a shade guide, therefore the claimed limitation is met. Applicant further argues that Jung does not teach means for analyzing a set of readings corresponding to different areas of the object, however, as discussed above Jung teaches this limitation in par. 190-191 and fig. 25. Further applicant argues that Jung does not teach the limitation of a camera for sampling an image of the object and then reporting on the image shade corresponding to the plurality of readings at their locations on the object, however as discussed above, this limitation is taught in par. 171 of Jung. Applicant argues regarding Lehmann that the reference does not deal with spectrometric readings, however this reference is not used to meet the limitation of a spectrometric reading. Lehmann is used to teach the limitation of averaging several measurements, which Jung teaches measuring several areas as discussed above, in order to get an averaged color over the sample area to produce a more accurate color of replacement material.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

/Heidi M Eide/
Examiner, Art Unit 3732

6/17/2009